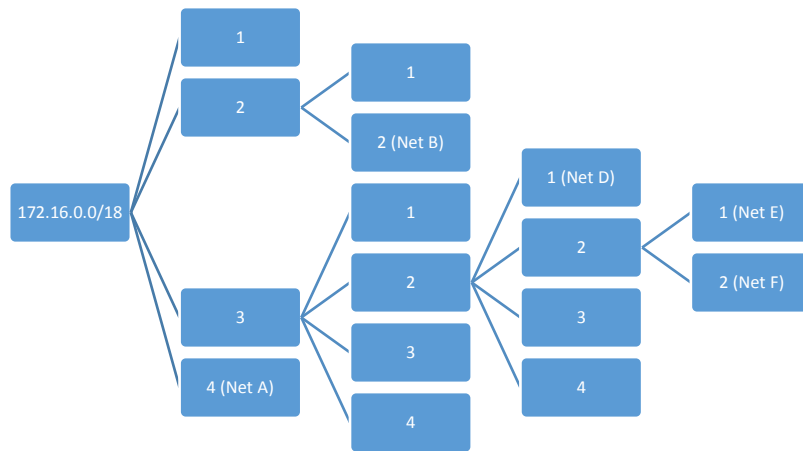


LAB 4 FINAL

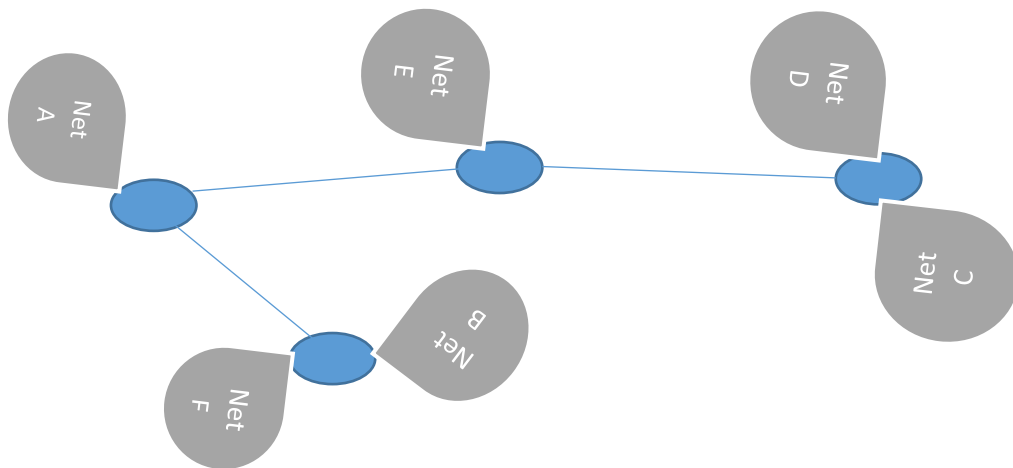
Task 1 :

Given IP address : 172.16.0.0 /18, do the tree VLSM according to the diagram.

Network - Answer	Number of Host	Specific host IP	Host IP answer
Net A (48.0)	3000	2562 th , 1920 th	58.2 , 55.128
Net B (24.0)	2020	277 th , 387 th	25.21, 25.131
Net C (32.0)	510	320 th ,450 th	33.64, 33.194
Net D (34.0)	126	100 th , 26 th	34.100, 34.26
Net E (34.128)	60	30 th , 48 th	34.158, 34.176
Net E (34.192)	32	10 th , 30 th	34.202, 34.222
Router – Router	2		35.0 (network add.)
Router – Router	2		35.4 (network add.)
Router – Router	2		35.8 (network add.)

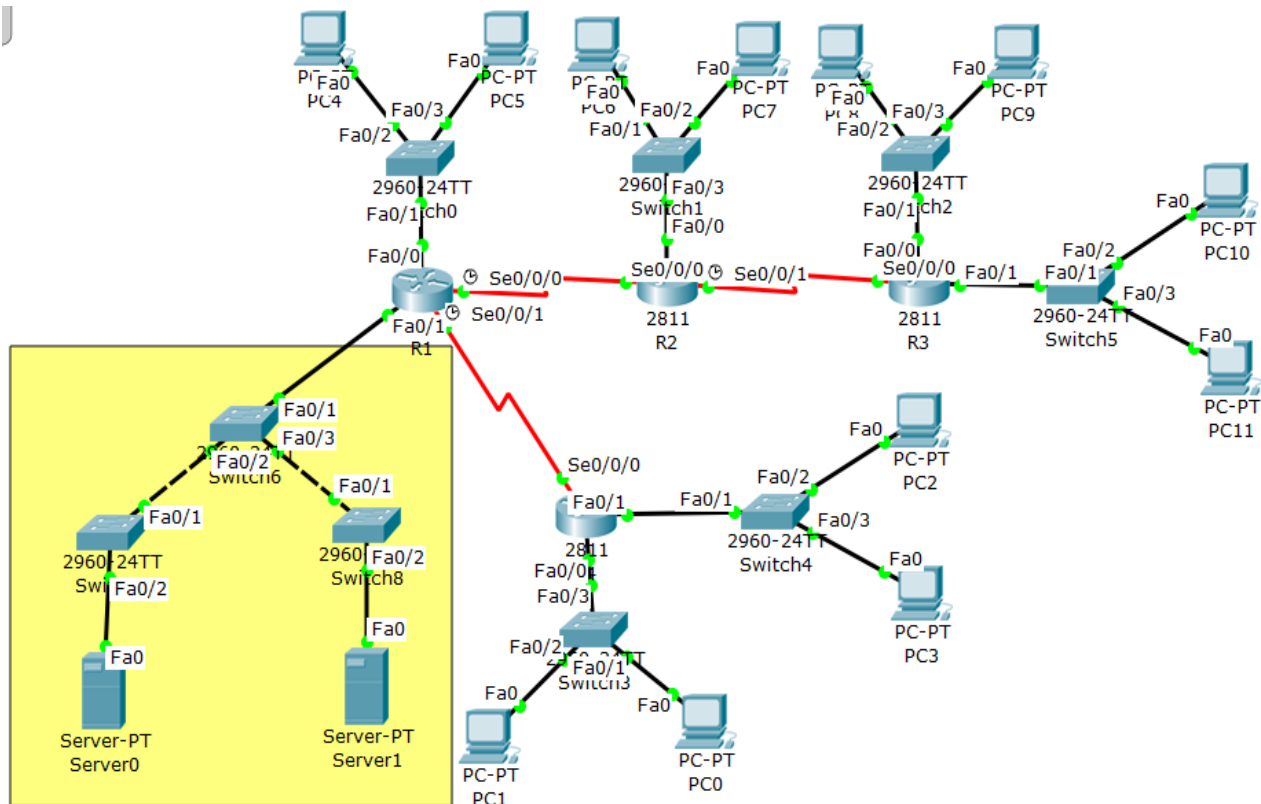


Tree VLSM: IP & Subnet distribution



Topology for packet tracer

EIGRP100 + VLAN + VTP



Do all routing by using EIGRP100.

```
R1 Router>en
R1 Router#conf term
R1 Router(config)#int f0/0
R1 Router(config-if)#no shut
R1 Router(config-if)#ip add 172.16.48.1 255.255.240.0
R1 Router(config-if)#int s0/0/0
R1 Router(config-if)#ip add 172.16.35.1 255.255.255.252
R1 Router(config-if)#no shut
R1 Router(config-if)#int s0/0/1
R1 Router(config-if)#ip add 172.16.35.9 255.255.255.252
R1 Router(config-if)#no shut

R2 Router>en
R2 Router#conf term
R2 Router(config)#int f0/0
R2 Router(config-if)#ip add 172.16.34.129 255.255.255.192
```

```
R2 Router(config-if)#no shut
R2 Router(config-if)#int s0/0/1
R2 Router(config-if)#ip add 172.16.35.5 255.255.255.252
R2 Router(config-if)#no shut
R2 Router(config-if)#int s0/0/0
R2 Router(config-if)#ip add 172.16.35.2 255.255.255.252
R2 Router(config-if)#no shut
```

```
R3 Router>en
R3 Router#conf term
R3 Router(config)#int f0/0
R3 Router(config-if)#ip add 172.16.34.1 255.255.255.128
R3 Router(config-if)#no shut
R3 Router(config-if)#int f0/1
R3 Router(config-if)#ip add 172.16.32.1 255.255.254.0
R3 Router(config-if)#no shut
R3 Router(config-if)#int s0/0/0
R3 Router(config-if)#ip add 172.16.35.6 255.255.255.252
R3 Router(config-if)#no shut
```

```
R4 Router>en
R4 Router#conf term
R4 Router(config)#int f0/0
R4 Router(config-if)#ip add 172.16.24.1 255.255.248.0
R4 Router(config-if)#no shut
R4 Router(config-if)#int f0/1
R4 Router(config-if)#ip add 172.16.34.193 255.255.255.192
R4 Router(config-if)#no shut
R4 Router(config-if)#int s0/0/0
R4 Router(config-if)#ip add 172.16.35.10 255.255.255.252
R4 Router(config-if)#no shut
```

```
R1 Router(config-if)#ex
R1 Router(config)#router eigrp 100
R1 Router(config-router)#net 172.16.48.0 0.0.15.255
R1 Router(config-router)#net 172.16.35.0 0.0.0.3
R1 Router(config-router)#net 172.16.35.8 0.0.0.3
```

```
R2 Router(config-if)#ex
R2 Router(config)#router eigrp 100
R2 Router(config-router)#net 172.16.34.128 0.0.0.63
R2 Router(config-router)#net 172.16.35.0 0.0.0.3
R2 Router(config-router)#net 172.16.35.4 0.0.0.3
```

```
R3 Router(config-if)#ex
R3 Router(config)#router eigrp 100
R3 Router(config-router)#net 172.16.32.0 0.0.1.255
R3 Router(config-router)#net 172.16.34.0 0.0.0.127
R3 Router(config-router)#net 172.16.35.4 0.0.0.3
```

```
R4 Router(config-if)#ex
R4 Router(config)#router eigrp 100
R4 Router(config-router)#net 172.16.24.0 0.0.7.255
R4 Router(config-router)#net 172.16.34.192 0.0.0.63
R4 Router(config-router)#net 172.16.35.8 0.0.0.3
```

```
Switch6 Switch>en
Switch6 Switch#conf term
Switch6 Switch(config)#vlan 10
Switch6 Switch(config-vlan)#name http
Switch6 Switch(config-vlan)#vlan 20
Switch6 Switch(config-vlan)#name ftp
Switch6 Switch(config-vlan)#vtp domain server
Switch6 Switch(config)#int range f0/1-3
Switch6 Switch(config-if-range)#sw m tr
```

```
Switch7 Switch>en
Switch7 Switch#conf term
Switch7 Switch(config)#int f0/2
Switch7 Switch(config-if)#ex
Switch7 Switch(config)#vtp mode cli
Switch7 Switch(config)#int f0/2
Switch7 Switch(config-if)#sw m acc
Switch7 Switch(config-if)#sw acc vlan 10
```

```
Switch8 Switch>en
Switch8 Switch#conf term
Switch8 Switch(config)#vtp mode cli
Switch8 Switch(config)#int f0/2
Switch8 Switch(config-if)#sw m acc
Switch8 Switch(config-if)#sw acc vlan 20
```

```
R1 Router>en
R1 Router#conf term
R1 Router(config)#int f0/1.10
R1 Router(config-subif)#encap dot
```

```
R1 Router(config-subif)#encap dot 10
R1 Router(config-subif)#ip add 192.168.1.1 255.255.255.192
R1 Router(config-subif)#no shut
R1 Router(config-subif)#int f0/1.20
R1 Router(config-subif)#encap dot 20
R1 Router(config-subif)#ip add 192.168.1.65 255.255.255.192
R1 Router(config-subif)#int f0/1
R1 Router(config-if)#no shut
R1 Router(config-if)#ex
R1 Router(config)#router eigrp 100
R1 Router(config-router)#net 192.168.1.0 0.0.0.63
R1 Router(config-router)#net 192.168.1.64 0.0.0.63
```